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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,513	06/22/2006	John Brownlie	87792.017905	3443

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EXAMINER	
BLUMEL, BENJAMIN P	
ART UNIT	**PAPER NUMBER**
1648	

NOTIFICATION DATE	DELIVERY MODE
07/30/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/522,513	BROWNLIE ET AL.	
	Examiner	Art Unit	
	Benjamin P. Blumel	1648	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *1* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 January 2005*.

2a)☐ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *88-163* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *88-163* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 88-93 and 96 (in part), drawn to an isolated coronavirus spike (S) protein.

Group II, claim(s) 88-93 and 96(in part), drawn to an isolated coronavirus polymerase (pol) protein.

Group III, claim(s) 88-93 and 96 (in part), drawn to an isolated coronavirus hemagglutinin/esterase (HE) protein.

Group IV, claim(s) 94 and 95, drawn to a method of producing a S protein.

Group V, claim(s) 97 (in part) and 98, drawn to a method of making an anti-CRCV S protein antibody.

Group VI, claim(s) 97 (in part) and 100, drawn to a method of making an anti-CRCV HE protein antibody.

Group VII, claim(s) 99, drawn to an anti-S protein antibody.

Group VIII, claim(s) 101, drawn to an anti-HE protein antibody.

Group IX, claim(s) 102-106, 163 (in part) and 107, drawn to a method of screening a dog for S protein specific antibodies.

Group X, claim(s) 102-106, 163 (in part) and 108, drawn to a method of screening a dog for HE protein specific antibodies.

Group XI, claim(s) 102, 109-112, 116-117, 163 (in part) and 113 drawn to a method of identifying S proteins in canine biological samples.

Group XII, claim(s) 102, 109-112, 116-117, 163 (in part) and 114, drawn to a method of identifying pol proteins in canine biological samples.

Group XIII, claim(s) 102, 109-112, 116-117, 163 (in part) and 115, drawn to a method of identifying HE proteins in canine biological samples.

Group XIV, claim(s) 118-124 and 151-156 (in part), drawn to an immunosorbent assay for detecting S protein antibodies.

Group XV, claim(s) 118-124 and 151-156 (in part), drawn to an immunosorbent assay for detecting HE protein antibodies.

Group XVI, claim(s) 125-127 (in part), drawn to a solid substrate with a S protein.

Group XVII, claim(s) 125-127 (in part), drawn to a solid substrate with a HE protein.

Group XVIII, claim(s) 128 and 129 (in part) and 130-131, and 134-136 (in part), drawn to a vaccine composition containing a S protein.

Group XIX, claim(s) 128, 129 and 132 (in part) and 133, and 134-136 (in part), drawn to a vaccine composition containing a HE protein.

Group XX, claim(s) 128, 129, 132 and 134-136 (in part) drawn to a vaccine composition containing a integral membrane protein (M).

Group XXI, claim(s) 137, 138 and 143 (in part), and 139-140, drawn to a use of a S protein.

Group XXII, claim(s) 137, 138, 141 and 143 (in part), and 142, drawn to a use of a HE protein.

Group XXIII, claim(s) 137, 138, 141 and 143 (in part), drawn to a use of a M protein.

Group XXIV, claim(s) 144 (in part), drawn to a method of vaccinating a dog with the vaccine of Group XVIII.

Group XXV, claim(s) 144 (in part), drawn to a method of vaccinating a dog with the vaccine of Group XIX.

Group XXVI, claim(s) 144 (in part), drawn to a method of vaccinating a dog with the vaccine of Group XX.

Group XXVII, claim(s) 145 and 146 (in part), drawn to a method of combating the spread of CRCV between dogs by vaccinating nearby dogs once a dog is identified to as being infected that involves testing the dog for S protein specific antibodies or quarantining the infected dog.

Group XXVIII, claim(s) 145 and 146 (in part), drawn to a method of combating the spread of CRCV between dogs by vaccinating nearby dogs once a dog is identified to as being infected that involves testing the dog for HE protein specific antibodies or quarantining the infected dog.

Group XXIX, claim(s) 145 and 146 (in part), drawn to a method of combating the spread of CRCV between dogs by vaccinating nearby dogs once a dog is identified to as being infected that involves testing a dog for S proteins or quarantining the infected dog.

Group XXX, claim(s) 145 and 146 (in part), drawn to a method of combating the spread of CRCV between dogs by vaccinating nearby dogs once a dog is identified to as being infected that involves testing a dog for pol proteins or quarantining the infected dog.

Group XXXI, claim(s) 145 and 146 (in part), drawn to a method of combating the spread of CRCV between dogs by vaccinating nearby dogs once a dog is identified to as being infected that involves testing a dog for HE proteins or quarantining the infected dog.

Group XXXII, claim(s) 147 (in part), drawn to a method for identifying a test vaccine that involves testing a dog for S protein specific antibodies.

Group XXXIII, claim(s) 147 (in part), drawn to a method for identifying a test vaccine that involves testing a dog for HE specific antibodies.

Group XXXIV, claim(s) 147 (in part), drawn to a method for identifying a test vaccine that involves testing a dog for S proteins.

Group XXXV, claim(s) 147 (in part), drawn to a method for identifying a test vaccine that involves testing a dog for Pol proteins.

Group XXXVI, claim(s) 147 (in part), drawn to a method for identifying a test vaccine that involves testing a dog for HE proteins.

Group XXXVII, claim(s) 148, drawn to a CIRD vaccine.

Group XXXVIII, claim(s) 149 and 150, drawn to an *E. coli* expressing a spike protein of CRCV and a plasmid containing the spike protein.

Group XXXIX, claim(s) 157, 158, 160, 161 and 159 and 162 (in part), drawn to a method of passively immunizing a dog with anti-S protein antibodies.

Group XXXX, claim(s) 157, 158, 160, 161 and 159 and 162 (in part), drawn to a method of passively immunizing a dog with anti-HE antibodies.

The inventions listed as Groups I-XXXX do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the claims are directed antigens of canine respiratory coronavirus (CRCV), antibodies specific for such antigens, methods of screening dogs for either antigens or antibodies related to CRCV infections, methods of immunizing dogs or passively treating dogs against CRCV infections, methods of making antibodies, methods of testing vaccines, etc. However, because Genbank Accession # AF058944 teaches the HE protein of a bovine coronavirus and since the claimed inventions are also drawn to distinct coronavirus proteins and antibodies specific for such proteins, no special technical feature exists for groups I-XXXX as defined by PCT Rule 13.2, because it does not define a contribution over the prior art. Note that PCT Rule 13 does not provide for multiple products or methods within a single application. Because the technical feature of Groups I-XXXX is not a special technical feature, unity of invention is lacking.

Summary

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and the product claims are subsequently found allowable, withdrawn process claims that depend from or otherwise require all the limitations of

the allowable product claim will be considered for rejoinder. All claims directed to a nonelected process invention must require all the limitations of an allowable product claim for that process invention to be rejoined.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103 and 112. Until all claims to the elected product are found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowable product claim will not be rejoined. See MPEP § 821.04(b). Additionally, in order to retain the right to rejoinder in accordance with the above policy, applicant is advised that the process claims should be amended during prosecution to require the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder**. Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BENJAMIN P. BLUMEL whose telephone number is (571)272-4960. The examiner can normally be reached on M-F, 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bruce Campell can be reached on 571-272-1600. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Stacy B Chen/
Primary Examiner, Art Unit 1648

/BENJAMIN P BLUMEL/
Examiner
Art Unit 1648